## Special Focus Areas of 16th Symposium on Thermophysical Properties

- **Instrumentation and Measurement Techniques**
  *Tom Bruno (NIST)*
- **Inverse Problems and Non-Destructive Evaluation**
  *Roberto Li Voti (U. Rome)*
- **Optical and Thermal Radiative Properties of Materials**
  *Zhuomin Zhang (Georgia Tech)*
- **Photothermal and Photoacoustic Techniques**
  *Gerald Diebold (Brown U.) & Andreas Mandelis (U. Toronto)*
- **Properties at the Nanoscale**
  *Pamela Norris (U. Virginia) & Robert Stevens (Rochester Inst. Technol.)*
- **Properties for Metallurgical Process Design**
  *Tony Overfelt (Auburn U.) & Ivan Egry (German Aerospace Center)*
- **Properties for Microelectronics**
  *Mehdi Asheghi (Carnegie Mellon U.)*
- **Properties for Sustainable Development**
  *Robert Breckenridge (INL) & Paul Wichlacz (INL)*
- **Properties of Aqueous Systems**
  *Allan Harvey (NIST) & Ilja Siepmann (U. Minnesota)*
- **Properties of Fuels, including Natural Gas Systems**
  *Jim Holste (Texas A&M) & Ken Hall (Texas A&M)*
- **Properties of Mesoscopic, Self-Assembled, and Strongly Fluctuating Systems**
  *Mikhail Anisimov (U. Maryland)*
- **Properties of Nuclear Materials**
  *Fred Gunnerson (U. Idaho)*
- **Properties of Polymers**
  *Chad Snyder (NIST) & Alamgir Karim (NIST)*
- **Properties of Working Fluids, Including Refrigerants**
  *Mark McLinden (NIST) & Rajiv Singh (Honeywell)*
- **Property Needs in Biothermophotonics**
  *Andreas Mandelis (U. Toronto) & J. J. Alvarado-Gil (CINVESTAV IPN)*
- **Subsecond Thermophysics**
  *Gernot Pottlacher (TU-Graz)*
- **Wetting, Interfaces, and Membranes**
  *Marcus Müller (Georg-August-U.)*

## Joint Symposia with 19th International Conference on Chemical Thermodynamics (ICCT)

- **Databases, Data Systems, Software Applications, and Correlations**
  *Marcia Huber (NIST) & Andy Johns (Software Products TUV NEL)*
- **Ionic Liquids**
  *Andreas Heintz (U. Rostock) & Ken Marsh (U. Canterbury)*
- **Molecular Modeling, Including Simulation**
  *Ray Mountain (NIST) & Susumu Okazaki (Inst. Molecular Science)*
- **Properties and Processes for a Hydrogen-based Economy**
  *Richard Jacobsen (U. Idaho)*
- **Thermodynamics and Properties in the Biological, Medical, Pharmaceutical, Agricultural and Food Sectors**
  *Mike Henzl (U. Missouri), David Remeta (Rutgers U.), & Neil Wright (Michigan State U.)*

SYMPOSIUM WEBSITE: http://symp16.boulder.nist.gov

**Second Announcement and Call for Papers**

# Sixteenth Symposium on Thermophysical Properties

# 16

**http://symp16.boulder.nist.gov**

**July 30 - August 4, 2006**
**University of Colorado at Boulder**

**Organized by:**
- National Institute of Standards and Technology
- Committee on Thermophysical Properties
  American Institute of Chemical Engineers
  American Society of Mechanical Engineers

THERMO INTERNATIONAL 2006
www.thermointernational.org

- 16th Smposium on Thermophysical Properties
- 19th International Conference on Chemical Thermodynamics
- 61st Calorimetry Conference

# ABOUT THE CONFERENCE

This is the Sixteenth Symposium of the well-established series of conferences on thermophysical properties. The Symposium is concerned with theoretical, experimental, simulation, and applied aspects of the thermophysical properties of gases, liquids, and solids, including biological, nanoscale, mesoscale, and self-assembling systems. Appropriate topics are:

- *Thermodynamic Properties*, including equation of state, phase equilibria, *p-v-T* behavior, heat capacity, enthalpy, thermal expansion, sound speed, and critical phenomena.
- *Transport Properties*, including thermal and electrical conductivity, viscosity, mass diffusion, thermal diffusion, non-Newtonian behavior, and thermal, thermoacoustic, and other diffusion waves.
- *Optical and Thermal Radiative Properties*, including dielectric constant, refractive index, emissivity, reflectivity, and absorptivity.
- *Interfacial Properties*, including solid-solid interfaces, surface tension, interfacial profiles, interfacial transport, and wetting.
- *Data Correlation*, including data evaluation and prediction, standard reference data, databases, and storage and retrieval of thermophysical property data.

# GENERAL INFORMATION

All technical sessions will be held at the University of Colorado, Boulder, Colorado, U.S.A. The Symposium is sponsored by the National Institute of Standards and Technology and the American Society of Mechanical Engineers.

The Sixteenth Symposium email address is: **symp16@nist.gov**

The co-chairs of the Symposium are:


***Daniel G. Friend***
Physical & Chemical Properties Division
National Institute of Standards and Technology
325 Broadway, MS 838.00
Boulder, CO 80305-3328, U.S.A.
**Fax**: 303-497-5044

***Andreas Mandelis***
Center for Advanced Diffusion-Wave Technologies
Department of Mechanical and Industrial Engineering and
Department of Electrical and Computer Engineering
University of Toronto
5 King's College Road
Toronto, Ontario M5S 3G8, Canada

Conference Secretary
***Diana Tracy***
*Phone: 303-497-3220*


This Symposium is being held as part of THERMO International 2006. General information about the Symposium, including details about registration and housing, is available at http://www.thermointernational.org

IMPORTANT NOTE:
Abstracts due by December 19, 2005
by web form at: http://symp16.boulder.nist.gov
or
MS Word to symp16@nist.gov

# CALL FOR PAPERS

Abstracts of 200-300 words are due by December 19, 2005.

*The content of the abstracts will be the basis for acceptance of papers for presentation at the Symposium.*

It is expected that Poster Sessions will be held as part of the Sixteenth Symposium on Thermophysical Properties in order to limit the numbers of parallel sessions. Posters and oral presentations will receive equal recognition as Symposium contributions. Prospective authors will be asked to indicate whether a poster presentation or an oral presentation is preferred. The organizers will attempt to honor requests for each type of presentation, although the assignment of sessions may necessitate changes. Information on this subject will be included in the acceptance letters to be sent in early 2006. Papers describing all work presented at the Symposium are encouraged, but not required. Papers must be submitted electronically by May 8, 2006. A preprint volume on CD-ROM will be available at the Symposium. The papers will be reviewed, and those accepted will be published in special proceedings issues of the *International Journal of Thermophysics* and *Fluid Phase Equilibria*.

***Instructions for Preparation and Submittal of Abstracts:*** Please use the abstract-submission form on the Sixteenth Symposium website (**http://symp16.boulder.nist.gov**). Information can be typed directly into the form or copied and pasted from another computer application (i.e., word processor). The abstract will be submitted when the "Submit Abstract" button is pressed; confirmation of the receipt of each abstract will be sent to the e-mail address provided.

The abstract submission form will accept only ASCII characters, and will not accept equations. However, in order to accommodate the most common cases of special symbols, namely superscripts, subscripts, and Greek letters, you can insert them into the form using a special (simple) syntax explained on the Symposium website.

If you *cannot* use the web form, you must submit your abstract as an MS Word file *attachment* to an e-mail sent to **symp16@nist.gov.** In this case, please use the format specifications provided on the Symposium website.

When submitting an abstract (using the web form or MS Word attachment), please be sure to provide the following information: (a) preference for poster or oral presentation; (b) the most appropriate special, joint or general session(s); (c) the speaker; (d) the corresponding author (including e-mail address as well as telephone and fax numbers). We will attempt to honor your requests for items (a) and (b), but adjustments may be required for the organization of the Symposium. Final assignment of each paper will be included in the acceptance letter.

.

# ORGANIZATION OF SESSIONS

## General Sessions of 16th Symposium on Thermophysical Properties

- Fluid Property Measurements
  *Rakesh Srivastava (Dow)*
- Properties of Solids
  *Andreas Mandelis (U. Toronto)*
- Theory of Thermophysical Properties, Including Statistical Mechanics
  *John Kincaid (SUNY - Stony Brook)*

-continued-